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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KUMAR, PREETI

ART UNIT PAPER NUMBER

1751

DATE MAILED: 06/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/055,652

Applicant(s)

ANDERHEGGEN ET AL.

Examiner

Preeti Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 8, 9. 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-22 are pending.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

3. Claim 11 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim shall not serve as a basis for any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claim 13 not been further treated on the merits.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "such" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-22 are rejected under 35 U.S.C. 103(a) as obvious over CA 771,086.

CA 771,086 teaches that oil-based finishes are used on spandex yarns and are applied directly below the spinning cell before winding up the spun filaments on a bobbin. Waste yarn, therefore, usually contains an oil based finish. If finish removal is desired, the w yarn may be washed thoroughly with a suitable organic solvent, and then rinsed with water and dried thoroughly. See page 5, 1st paragraph.

CA 771,086 teaches that the step of soaking the yarn prior to agitation is not necessary if sufficiently rapid agitation of the solvent and yarn is available. Suitable agitators include, screw-type and disc-type agitators. Agitation is continued until the yarn is substantially all dissolved. The period of agitation depends on obvious variables, such as the size of the tank, dimension and form of the agitators, viscosity of the solution, and speed of agitation. The speed of agitation is adjusted so that the solution temperature does not exceed 60 degrees Celsius. See page 4, 1st paragraph.

In example 1 on page 8, 2nd paragraph, CA 771,086 illustrates a portion of spandex yarn chopped into lengths of about 5 cm are added to dimethylacetamide such that the concentration of yarn is 25%. After a soaking period of 60 minutes, the yarn is agitated for 120 minutes at a temperature of 35 degrees Celsius. The solution is filtered through sheets of cellulose pulp and the filtrate is blended with a fresh batch of spinning solution. See page 8, paragraph 2 and 3.

CA 771,086 do not specifically teach a process for separating PDMS containing preparation oil from elastane fibers by mixing the chopped elastane fiber mixture with a bath of water as recited in the instant claims.

It would have been nonetheless obvious to one of ordinary skill in the art, to arrive at a process for separating PDMS containing preparation oil from elastane fibers by mixing the chopped elastane fiber mixture with a bath of water as recited in the instant claims because CA 771,086 teach the removal of finishing oil by washing the yarn with an organic solvent and then rinsing with water. Examiner notes that the claims are not drawn to a mixture comprising water and an organic solvent, however, on page 4 of the specification, applicants cite that preferably no chemical emulsifiers are added (line 15), furthermore, the instant claims do not exclude organic solvents from being part of the process.

Furthermore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use water to separate PDMS from elastane as recited by the instant claims because it is common knowledge to one of ordinary skill in the art

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that elastane fibers comprising polydialkylsiloxanes and/or polyether polysiloxanes are vulnerable to chlorinated water degradation.

9. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kauch et al. (US 6,123,885) in view of Hutte et al. (US 5,969,008).

Kauch et al. teach a process for the production of elastane fibers in which 0.8 to 2% by weight of polydimethylsiloxane and 0.2 to 0.6% by weight of ethoxylated polydimethylsiloxane are added to the elastane spinning solution before it is spun. Kauch et al. teach that the object of applying polydimethylsiloxane and polyether-modified PDMS (finishing oils) to the spun elastane filaments is to improve the take-off properties of the elastane fibers in warping and knitting processes. The inclusion of the mixtures in the spinning solution is not mentioned in these documents, nor do they contain any reference to the fact that mixtures, especially those having the composition according to the invention, included in the elastane spinning solution produce an improvement in the optical properties of warp-knitted fabrics obtained therefrom. See col.1, ln.1-25 and col.2, ln.57-62.

Kauch et al. do not specifically teach a process for using water for separating the PDMS from the elastane fiber and the other requisite components of the process in the specific proportions and ratios as recited by the instant claims.

Hutte et al. teach that a large number of additives in elastane fibers have been described in order to improve the resistance to chlorinated water of elastic polyurethane filaments. Elastic polyurethane fibers consisting of long-chain, synthetic polymers, at least 85% of which are synthesized from segmented polyurethanes based on, for

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example, polyethers, polyesters and/or polycarbonates, are well-known. Yarns consisting of such fibers are used for the production of fabrics or materials which in turn are suitable, inter alia, for corsetry, hosiery and sportswear such as, for example, swimming costumes or swimming trunks. However, in swimming pools the water is frequently so strongly chlorinated for reasons of hygiene that the active-chlorine content usually amounts to between 0.5 and 3 ppm (parts per million) or even more. If polyurethane fibers are exposed to such an environment this can result in degradation or impairment of the physical properties of the fibers such as, for example, their strength, and, due to this, premature textile wear. See col.1, ln.23-36.

It would have been obvious to one of ordinary skill in the art, to arrive at a process for separating PDMS from elastane and the other requisite components of the process in the specific proportions and ratios as recited by the instant claims because Haute et al. in combination with Kauch et al. teach the inherent degradation of the elastane fibers coated with PDMS finishing oil when exposed to chlorinated water.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Remaining references cited but not relied upon are considered to be cumulative to or less pertinent than those relied upon or discussed above. Applicant is reminded that any evidence to be presented in accordance with 37 CFR 1.131 or 1.132 should be submitted before final rejection in order to be considered timely.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 703-305-0178. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on 703-308-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-872-9309.

Preeti Kumar
Examiner
Art Unit 1751

PK
June 16, 2003


YOGENDRA N. GUPTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700